UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/648,861	08/25/2000	Samarth Sarthi	DB000877-000	5902

24122 7590 10/03/2003		

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EXAMINER
FRENEL, VANEL

ART UNIT	PAPER NUMBER
3626	

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)	
Office Action Summary	09/648,861		SARTHI ET AL.	
	Examiner		Art Unit	
	Vanel Frenel		3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 August 2000</u> .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-41</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-41</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Notice to Applicant

1.   This communication is in response to the application filed 08/25/00. Claims 1-41

are pending.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

3.   Claims 1-20, 24-26, and 30-41 are rejected under 35 U.S.C. 101 because the

claimed invention is directed to non-statutory subject matter.

The basic of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technology arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the

technological arts. More ideas in the abstract (i.e., abstract idea, law of nature, natural

phenomena) that do not apply, involve, use, or advance the technological arts to

promote the "progress of science and the useful arts" (i.e., the physical sciences as

opposed to social sciences, for example) and therefore are found to be non-statutory

subject matter. For a process claim to pass muster, the recited process must somehow

apply, involve, use, or advance the technological arts. In present case, claims 1-20, 24-

26, and 30-41do not show anything in the body of the claims that recite any structure of

functionality to suggest that a computer performs the recited steps.

As such, the above deficiencies may be cured by simply explicitly reciting that the claimed method/process steps are embodied or implemented on a "computer system" or on a "computer readable-medium" within the body ~~of the body~~ of the claim and not just in the preamble (as appropriate), provided Applicant show proper support for such recitations in the originally filed specification.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al (5,799,286) in view of Ulwick (6,115,691).

(A)   As per claim 1, Morgan discloses a method of creating a model of a process, comprising: identifying activities that comprise the process (Col.4, lines 12-67 to Col.5, line 34); identifying measurable drivers for each of the activities (Col.4, lines 12-67 to Col.5, line 34); costing the drivers (Col.17, lines 22-67; Col.18, lines 65-67 to Col.19, line 3).

Morgan does not explicitly disclose representing a relationship between various drivers to reflect interdependence between activities; and building a function that represents the process by using the relationships.

However, these features are known in the art, as evidenced by Ulwick. In
particular, Ulwick suggests representing a relationship between various drivers to reflect
interdependence between activities (See Ulwick, Col.1, lines 14-67 to Col.2, line 12);
and building a function that represents the process by using the relationships (See
Ulwick, Col.1, lines 14-67 to Col.2, line 12).

It would have been obvious to one of ordinary skill in the art at the time of the
invention to have included the feature of Ulwick within the system of Morgan with the
motivation of providing business strategy, develop new and improved products, identify
marketing channels, and identify product features that will deliver the most value to the
customer (See Ulwick, Col.12, line 7-15).

(B)   As per claim 2, Ulwick discloses the method wherein the step of building a
function includes the steps of representing each activity as a function of its drivers, and
using certain of said activity representations in said function representative of the
process (See Ulwick, Col.1, lines 14-67 to Col.2, line 12).

The motivation for combining the respective teachings of Morgan and Ulwick are
as discussed above in rejection of claim 1, and incorporated herein.

(C)   As per claim 3, Ulwick discloses the method additionally comprising the steps of
optimizing the function, and using the results from said optimization step to revise the
function (Col.11, lines 15-67 to Col.12, line 15).

The motivation for combining the respective teachings of Morgan and Ulwick are
as discussed above in rejection of claim 1, and incorporated herein.

(D)   As per claim 4, Morgan discloses the method wherein said step of identifying

measurable drivers includes the step of identifying economic and non-economic drivers

(Col.1, lines 10-56).

(E)   As per claim 5, Ulwick discloses the method wherein said step of costing the

drivers includes identifying at least one of fixed and variable components (Col.1, lines

30-67; Col.3, lines 27-67).

The motivation for combining the respective teachings of Morgan and Ulwick are

as discussed above in rejection of claim 1, and incorporated herein.

(F)   As per claim 6, Ulwick discloses the method discloses additionally comprising the

step of identifying drivers for said fixed and variable components and costing said

drivers for said fixed and variable components (Col.3, lines 27-67 to Col.4, line 29).

The motivation for combining the respective teachings of Morgan and Ulwick are

as discussed above in rejection of claim 1, and incorporated herein.

(G)   As per claim 7, Morgan discloses a method of creating a model of a process,

comprising: identifying activities that comprise the process (Col.4, lines 12-67 to Col.5,

line 34); identifying measurable drivers for each of the activities (Col.4, lines 12-67 to

Col.5, line 34); costing the drivers (Col.17, lines 22-67; Col.18, lines 65-67 to Col.19,

line 3); representing each activity as a function of its drivers (Col.6, lines 14-67 to Col.7,

line 39).

Morgan does not explicitly disclose representing a relationship between various

drivers to reflect interdependence between activities; and building a function that

represents the process by using the relationships.

However, these features are known in the art, as evidenced by Ulwick. In

particular, Ulwick suggests representing a relationship between various drivers to reflect

interdependence between activities (See Ulwick, Col.1, lines 14-67 to Col.2, line 22);

and building a function that represents the process by using the relationships (See

Ulwick, Col.1, lines 14-67 to Col.2, line 12).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to have included the feature of Ulwick within the system of Morgan with the

motivation of providing business strategy, develop new and improved products, identify

marketing channels, and identify product features that will deliver the most value to the

customer (See Ulwick, Col.12, line 7-15).

(H)   As per claim 13, Morgan discloses a method, comprising: identifying activities

that comprise a process (Col.4, lines 12-67 to Col.5, line 34); identifying measurable

drivers for each of the activities (Col.4, lines 12-67 to Col.5, line 34); costing the drivers

into at least one of fixed and variable components (Col.17, lines 22-67; Col.18, lines 65-

67 to Col.19, line 3); identifying drivers used in more than one activity (Col.4, lines 12-67

to Col.5, line 34).

Morgan does not explicitly disclose representing the relationship between identified drivers to reflect interdependence between activities; and building a function that represents the process by using the relationships.

However, these features are known in the art, as evidenced by Ulwick. In particular, Ulwick suggests representing a relationship between various drivers to reflect interdependence between activities (See Ulwick, Col.1, lines 14-67 to Col.2, line 12); and building a function that represents the process by using the relationships (See Ulwick, Col.1, lines 14-67 to Col.2, line 12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Ulwick within the system of Morgan with the motivation of providing business strategy, develop new and improved products, identify marketing channels, and identify product features that will deliver the most value to the customer (See Ulwick, Col.12, line 7-15).

(I)   Claim 18 differs from claims 1, 7 and 13 by reciting a computer-readable medium encoded.

As per this limitation, it is noted that Morgan discloses a computer program embodying a model of a process of the type comprised of a plurality of activities (See Morgan, Col.3, lines 41-67 to Col.4, line 67) and Ulwick discloses comprising: a series of instructions expressing the process as a function of variables that are drivers for more than one activity (See Ulwick, Col.1, lines 13-67 to Col.2, line 67).

Thus, it is readily apparent that these prior art system utilize a computer-readable medium encoded to perform their specific function.

The remainder of claim 18 is rejected for the same reason given above for claims 1, 7 and 13, and incorporated herein.

(J)   As per claim 20, Ulwick discloses the medium wherein the variables include fixed and variable components of said drivers (Col.1, lines 30-67; Col.3, lines 27-67).

The motivation for combining the respective teachings of Morgan and Ulwick are as discussed above in rejection of claims 1, 7, 13 and 18, and incorporated herein.

(K)   Claim 21 differs from claims 1, 7, 13, and 18 by reciting a system.

As per this limitation, it is noted that Morgan discloses a computer (Col.3, lines 41-67); input and output devices in communication with said computer, and a memory encoded with a computer program embodying a model of a process of the type comprised of a plurality of activities (Col.3, lines 41-67 to Col.4, line 67) and Ulwick discloses said computer program comprising a series of instructions expressing the process as a function of variables that are drivers for more than one activity (See Ulwick, Figs.17, 18; Col.21, lines 57-67 to Col.22, line 67).

Thus, it is readily apparent that these prior art system utilize a system to perform their specific function.

The remainder of claim 21 is rejected for the same reason given above for claims 1, 7, 13, and 18, and incorporated herein.

(L)   Claim 24 differs from claims 1, 7, 13, 18 and 21 by reciting a computer readable-medium encoded the process in terms of variables for drivers for a single activity.

As per this limitation, it is noted that Morgan discloses a computer program embodying a model of a process of the type comprised of a plurality of activities (See Morgan, Col.3, lines 41-67 to Col.4, line 67) and Ulwick discloses comprising: a series of instructions expressing the process in terms of variables that are drivers for more than one activity (See Ulwick, Col.1, lines 13-67 to Col.2, line 67).

Thus, it is readily apparent that these prior art system utilize a computer-readable medium encoded to perform their specific function.

The remainder of claim 24 is rejected for the same reason given above for claims 1, 7, 13, 18 and 21, and incorporated herein.

(M)   Claim 27 differs from claims 1,7, 13, 18, 21 and 24 by reciting a system, variables for drivers for a single activity.

As per this limitation, it is noted that Morgan discloses comprising: a computer; input and output devices in communication with said computer, and a memory encoded with a computer program embodying a model of a process of the type comprised of a plurality of activities (Col.3, lines 41-67 to Col.4, line 67) and Ulwick discloses said computer program comprising a series of instructions expressing the process as a function of variables that are drivers for more than one activity and variables for drivers for a single activity (See Ulwick,Figs.17, 18; Col.21, lines 57-67 to Col.22, line 67).

Thus, it is readily apparent that these prior art system utilize a system, variables for drivers for a single activity to perform their specific function.

The remainder of claim 27 is rejected for the same reason given above for claims 1, 7, 13, 18, 21, and 24, and incorporated herein.

(N)   Claim 30 differs from claims 1, 7, 13, 18, 21, 24 and 27 by reciting a method of optimizing a process.

As per this limitation, it is noted that Morgan discloses comprising: selecting at least one objective (Col.5, lines 4-55) and Ulwick discloses minimizing, for said selected objective, a function that represents the process in terms of variables that are drivers for more than one activity within the process (Col.7, lines 10-67 to Col.8, line 67).

Thus, it is readily apparent that these prior art system to utilize a method of optimizing a process to perform their specific function.

The remainder of claim 30 is rejected for the same reason given above for claims 1, 7, 13, 18, 21, 24, and 27, and incorporated herein.

(O)   As per claim 31, Ulwick discloses the method additionally comprising the step of reconstructing the physical model based on the results of said minimizing step (Col.7, lines 51-67 to Col.8, line 67).

The motivation for combining the respective teachings of Morgan and Ulwick are as discussed above in rejection of claims 1, 7, 13, 18, 21, 24 and 27, and incorporated herein.

(P)   As per claim 32, Ulwick discloses the method additionally comprising the step of selecting a set of constraints to be used in said minimizing step (Col.17, lines 21-67).

The motivation for combining the respective teachings of Morgan and Ulwick are as discussed above in rejection of claims 1, 7, 13, 18, 21, 24 and 27, and incorporated herein.

(Q)   Claim 33 differs from claims 1, 7, 13, 18, 21, 24, 27, and 30 by reciting a method of optimizing a process, and variables that are drivers for a single activity within the process.

As per this limitation, it is noted that Morgan discloses comprising: selecting at least one objective (Col.5, lines 4-55) and Ulwick discloses minimizing, for said selected objective, a function that represents the process in terms of variables that are drivers for more than one activity within the process (Col.7, lines 10-67 to Col.8, line 67).

Thus, it is readily apparent that these prior art system to utilize a method of optimizing a process to perform and variables that are drivers for a single activity within the process their specific function.

The remainder of claim 33 is rejected for the same reason given above for claims 1, 7, 13, 18, 21, 24, 27, and 30, and incorporated herein.

(R)   Claim 36 differs from claims 1, 7, 13, 18, 21, 24, 27, 30, and 33 by reciting a

computer-readable medium encoded with instructions.

As per this limitation, it is noted that Morgan discloses when executed by a

computer, perform a method comprising: selecting at least one objective (Col.5, lines 4-

55) and Ulwick discloses minimizing, for said selected objective, a function that

represents the process in terms of variables that are drivers for more than one activity

within the process (Col.7, lines 10-67 to Col.8, line 67).

Thus, it is readily apparent that these prior art system to utilize a computer-

readable medium encoded with instructions to perform their specific function.

The remainder of claim 36 is rejected for the same reason given above for claims

1, 7, 13, 18, 21, 24, 27, 30, and 33, and incorporated herein.

(S)   Claim 39 differs from claims 1, 7, 13, 18, 21, 24, 27, 30, 33, and 36 by reciting a

computer-readable medium encoded with instructions and variables that are drivers for

a single activity within the process.

As per this limitation, it is noted that Morgan discloses when executed by a

computer, perform a method comprising: selecting at least one objective (Col.5, lines 4-

55) and Ulwick discloses minimizing, for said selected objective, a function that

represents a process in terms of variables that are drivers for more than one activity

within the process (Col.7, lines 10-67 to Col.8, line 67).

Thus, it is readily apparent that these prior art system to utilize a computer-readable medium encoded with instructions and variables that are drivers for a single activity within the process to perform their specific function.

The remainder of claim 39 is rejected for the same reason given above for claims 1, 7, 13, 18, 21, 24, 27, 30, 33 and 36, and incorporated herein.

(T)   Claims 8-12, 14-17, 19, 22-23, 25-26, 28-29, 34-35, 37-38 and 40-41 recite the underlying process steps of the elements of claims 2-6, 20, and 31-32, respectively. As the various elements of claims 2-6, 20, and 31-32 and have been shown to be either disclosed by or obvious in view of the collective teachings of Morgan and Ulwick, it is apparent that the apparatus disclosed by the applied prior art performs the recited underlying functions. As such, the limitations recited in claims 8-12, 14-17, 19, 22-23, 25-26, 28-29, 34-35, 37-38 and 40-41 are rejected for the same reasons given above for the method claims 8-12, 14-17, 19, 22-23, 25-26, 28-29, 34-35, 37-38 and 40-41, and incorporated herein.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not applied art teaches computer-implemented product development planning method (6,233,493) and group management service support method for buildings, support device, support system, and computer program storage medium (2002/0178040).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanel Frenel whose telephone number is 703-305-4952. The examiner can normally be reached on 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on 703-305-9643. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

V.F
V.F
September 23, 2003

JOSEPH THOMAS
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